Anaplan

Anaplan Connector for MuleSoft

SW Version 1.1.2

Contents

1 Overview

The **Anaplan Connector for Mulesoft** allows you to create solutions that can extract, transform, and load (ETL) data from a source system into Anaplan. MuleSoft, Inc. provides an Eclipse-based graphical environment, Anypoint Studio, for designing and configuring integration solutions with Mulesoft's library of more than one hundred Connectors to other applications, such as Workday, Salesforce.com, and SAP.

The Anaplan Connector for Mulesoft can be used for import, export, and delete actions in an orchestration of services that Mulesoft calls a Flow.

For example, the Flow you build might:

- Import data into Anaplan from a database, Salesforce.com, or a CSV file.
- Export a recently updated Module from Anaplan into a CSV file, or import into a target, such as a database or Salesforce.com.
- Perform data transformations on a schedule.
- Delete obsolete data.
- Perform a model-to-model import.

You configure the Anaplan Connector with credentials to connect to a data source and perform operations. With the Anaplan Connector for Mulesoft, you build Anypoint flows that work with:

- Anaplan Lists
- Anaplan Modules
- Anaplan User Access

Note: *Anaplan Connect is a command-line tool for Import, Export, Delete, and Processes (combinations of Imports, Exports, and/or Deletes) that uses batch files and allows automated scheduling on the operating system scheduling tool. The Anaplan Connector is an alternative to Anaplan Connect, except that for Processes, the Anaplan Connector for Mulesoft is limited to model-to-model Import actions and Delete actions.*

2 Mulesoft Prerequisites

Integration with Mulesoft requires;

- familiarity with the Mulesoft Anypoint platform.
- an installation of Mulesoft's Anypoint Studio, which is the development environment for building an integration solution with the Anaplan Connector for MuleSoft. Anypoint Studio is available for download at http://www.mulesoft.com/platform/mule-studio.

3 Anaplan Prerequisites for the Demos

We provide Mulesoft demo projects for import, export, and delete. These demo projects can be a starting point for your Mulesoft projects.

- You know about the Anaplan actions (import, export, process, and delete) which are explained at https://community.anaplan.com/anapedia/around-the-platform/settings-tab/actions
- You have verified that your Anaplan model already has the actions that your Mule Flow will automate.

> ***Note:*** *The Anaplan model you are working with does not assume that the data is coming from a particular integration.*
> *For example, some Anaplan models have an internal integration with Salesforce.com; These models will not work with the Mulesoft integration if Salesforce is used as a source.*

- You know the values for the Variables for Authentication and Configuration for the demo you want to use.

Each demo contains a configuration file named mule-app.properties.

3.1 EXPORT DEMO MULE-APP.PROPERTIES FILE

```
anaplan.username= anaplan.password= anaplan.certificatePath=
anaplan.apiUrl=https://api.anaplan.com anaplan.workspaceId=
anaplan.modelId= anaplan.exportId=
```

3.2 IMPORT DEMO MULE-APP.PROPERTIES FILE

```
anaplan.username= anaplan.password= anaplan.certificatePath=
anaplan.apiUrl=https://api.anaplan.com anaplan.workspaceId=
anaplan.modelId= anaplan.importId= anaplan.columnSeparator=,
anaplan.delimiter=\\" file.readFromDir= file.moveToDir=
```

3.3 DELETE DEMO MULE-APP.PROPERTIES FILE

```
anaplan.username= anaplan.password= anaplan.certificatePath=
anaplan.apiUrl=https://api.anaplan.com anaplan.workspaceId=
anaplan.modelId= anaplan.deleteActionId=
```


4 Setting up the Environment

1. Install the following:
   - Java 7
   - Apache Maven
2. Download **Anypoint Studio** and install it.
3. Configure Maven:
   - Click Anypoint Studio > Preferences > Anypoint Studio > Maven Settings.
   - Click Browse to locate the folder where you installed Maven.
   - Click Test Maven Configuration and when you see the green checkmark, click OK.
4. Install the Anypoint DevKit Plugin:
   - From the Anypoint Studio Help menu, click Install New Software.
   - Click Work with > Anypoint Addons Update Site > Anypoint Devkit Plugin.
   - Click Next, Finish, and restart Studio

5 Installing the Anaplan Connector

Install the Anaplan connector, which is documented at the Mulesoft Anypoint Exchange at https://www.mulesoft.com/exchange#!/anaplan-integration-connector and can be installed in either of two ways.

> ***Note:*** *Your version of Anypoint Studio might be slightly different than what is described below.*

5.1 OPTION 1: FROM ANYPOINT STUDIO (RECOMMENDED FOR MOST USERS)

1. Click Help > Install New Software.
2. In the **Work with** drop-down, and click Anypoint Connectors Update Site.
3. In the **Search** field, type *Anaplan*.

> ***Note:*** *Anaplan Connector appears under Community.*

4. Select the **Anaplan Connector** checkbox, and click Next.
5. Follow the instructions as the wizard installs the connector.
6. Click the Installation Details button.
7. Verify that *Anaplan Connector (Mule 3.5.0+)* appears as installed software.
8. To verify the installation, on the **Anypoint Studio** menu, open the **About Anypoint Studio** dialog.

5.2 OPTION 2: FROM GITHUB (FOR ADVANCED USERS ONLY)

1. Go to https://github.com/anaplaninc/anaplan-mulesoft and get the downloadable zip named *anaplan-mulesoft-master.zip*.
2. In **Anypoint Studio**, click File > Import.
3. In the **Import** dialog, select Anypoint Studio > Anypoint Connector Project from External Location.
4. Click Next, click Browse, and open the project where you unzipped it.

> ***Note:*** *Anaplan-connector appears in the Package Explorer pane.*

5. Right-click the project, then click Anypoint Connector > Install or Update.
6. Follow the wizard to install the connector (ignore the warning about "unsigned content") and restart Anypoint Studio when prompted.

5.3 INSTALLING THE DEMO FLOWS

The Demo flows are inside the "Demo" folder that is part of the downloadable zip described above in "Option 2: From GitHub".

1. In **Anypoint Studio**, click File > Import, and select Anypoint Studio Project from External Location.
2. In the **Mule Import** dialog, navigate to the Project root of one of the demo projects, such as *anaplan-export*, and make sure that **Copy project into workspace** is selected.
3. You can now install another demo project. There are three demo projects, one for delete, one for import, and one for export.

5.3.1 VARIABLES FOR AUTHENTICATION AND CONFIGURATION

1. In your browser, navigate to https://github.com/anaplaninc/anaplan-mulesoft and download the zip.
2. Extract the zip file, and notice that it contains a subdirectory named *demo* that contains the demos for delete, export, and import.
3. In **Anypoint Studio**, click File > Open, and navigate to the **mule-app.properties** file for each of the demos:
   a. demo/anaplan-delete/src/main/app/mule-app.properties/mule-app.properties
   b. demo/anaplan-export/src/main/app/mule-app.properties/mule-app.properties
   c. demo/anaplan-import/src/main/app/mule-app.properties/mule-app.properties
4. Provide values for the variables in the **mule-app.properties** file you want to configure, and click File > Save.

Note: *The default delimiter is double-quotes, which is specified by anaplan.delimiter= \\" — To specify single quote ('), use anaplan.delimiter=\\' — To specify pipe (|), use anaplan.delimiter=\\|*

You are now ready to Configure Authentication: Basic or Certificate.

6 Configuring Authentication: Basic or Certificate

To set up Authentication for an **Export**, **Import**, **Execution Action** (for a **Delete** action), or a **Process**, perform the following steps.

1. Click Add (green plus sign (+)).
2. In the **Choose Global Type** dialog, click either Basic Authentication (*username*, *password*) or Certificate Authentication.
   - If you clicked **Basic Authentication**, populate the **Username** and **Password** fields, click Test Connection to verify that the credentials work, then click OK.
   - If you clicked **Certificate Authentication**, in the **Certificate Path** field, click the … (ellipses) button to navigate to the certificate, then click Test Connection to verify that the credentials work, then click OK.

6.1 TESTING THE CONNECTION TO THE ANAPLAN API SERVER

The variables for Authentication allow the flow to connect to the **Anaplan API Server**. To test this, from Anypoint Studio;

1. In the Demo flow, double-click the **Anaplan connector**.
2. Edit the configuration.
3. In the **Global Element Properties** dialog, click Test Connection and verify that the dialog box showing *Test connection successful* displays.

6.1.1 EXPORT

You can run the Demo flow, or create your own Flow that exports a List, Module, or a set of Users, from Anaplan into another data-source, such as a CSV file or Salesforce.com.

1. In **Anypoint Studio**, on the **File** menu, click New > Mule Project.
2. Enter the project name and mark the **Use Maven** check box if you want to Apache Maven to build this flow project. Click Finish.
3. In the **Message Flow** tab, build your flow by dropping Connectors into the Anypoint Studio Flow area.

   For example, configure the HTTP connector to listen on localhost:8081 to initiate the Anaplan export. The output from the connector is piped back to the HTTP connector to build a HTTP response so that we can view the results.

4. To configure the Anaplan connector, double-click the Anaplan connector icon on the flow, to open a configuration panel.
   - To set up the Anaplan authentication configuration, click the green + button next to the **Connector Configuration** field.

   Note: *For details on setting up a Username/Password based authentication or a Certificate based authentication, see Configuring Authentication: Basic or Certificate.*

5. Save your Flow (Command-s on Mac, or Ctrl + s on Windows).
6. Make sure your **Flow** tab is active.
7. On the **Run** menu, click Run As > Mule Application.
8. Verify that the console indicates the Flow is deployed.

9. Execute the Flow by opening a browser to http://localhost:8081.
10. Verify that the output of the Export displays on the HTML page.
    You are now ready to build a flow that exports to a file.

6.1.2 IMPORT

You can run the Demo flow, or create your own Flow that imports from another data-source, such as a .csv file or Workday, into Anaplan.

1. In **Anypoint Studio**, on the **File** menu, click New > Mule Project, and proceed though the dialogs.
2. On the **Anypoint Studio Message Flow** tab, build your flow by dropping Connectors into the **Anypoint Studio Flow** area.
   For example, import a .csv file from a directory, bring the data into a List in Anaplan, and move the .csv file to another specified directory.
3. Configure the **File** connector with the following:
   a. Path to the directory that holds the .csv file.

Important: **Make sure the directory contains exactly one (1) import file and no other files because the Flow will attempt to operate on all files in this original directory.**

Info: Macintosh users: To make sure the Path directory contains exactly one (1) import file, use the command-line Terminal to navigate to the directory, then type the ls -a command to see all files, including hidden files. If the Path directory contains a .DS_Store file, remove it by typing rm .DS_Store. (Terminal is available from Applications > Utilities > Terminal. **Do not** use the Finder because the Finder adds a "hidden" file named .DS_Store to any folder it modifies.)

   b. **Move to Directory** that receives the file after the import completes. This empties the original Path directory.

4. Set the **Anaplan Authentication**. See Configuring Authentication: Basic or Certificate.
5. Configure the Anaplan connector for the Import Operation, and specify the **Import name or ID**, the **Model name or ID**, and the **Workspace name or ID**.
6. Select your **Flow**, and on the **Run** menu, click Run As > Mule Application.

Note: *The Console indicates the result.*

7. To verify the Import, look at the model inside Anaplan. For example, if you imported into a List, that List now shows the imported data.

Important: **Make sure the directory contains exactly one (1) import file and no other files because the Flow will attempt to operate on all files in this original directory.**

Important: **Whenever a file is added to the Path directory, the flow automatically runs again. If you want to prevent this automatic triggering, go to Anypoint Studio Console and click the red square.**

6.1.3 DELETE

You can run the Demo flow, or create your own Flow for a Delete action.

1. In **Anypoint Studio**, on the **File** menu, click New > Mule Project.

2. In the **Message Flow** tab, build your flow by dropping Connectors into the **Anypoint Studio Flow** area.
3. Double-click the *Anaplan* connector.
4. Set the **Anaplan Authentication**. See Configuring Authentication: Basic or Certificate.
5. For **Operation**, choose *Delete*, then enter the **Name** or **ID** of the *Action*, *Model*, and *Workspace*.
6. Save your Flow.
7. Select your Flow, and on the **Run** menu, click Run As > Mule Application. This puts the Flow in the *deployed* state.
8. To run the Flow, refresh a browser that is set to http://localhost:8081/
9. Watch the Flow run in the **Anypoint Studio Console**, which displays the name of the Process within Anaplan.
10. Refresh your browser that is still pointing at http://localhost:8081 to see the outcome message, which displays the name of the Process within Anaplan.

6.1.4 PROCESS

A Process is an ordered set of multiple actions in a single container.

> **Important:** **The set can contain model-to-model Import and/or Delete actions. If you want a process for multiple Import actions that are not model-to-model, or for multiple export actions, use Anaplan Connect.**

6.1.4.1 SIMPLE EXAMPLE CONTAINING MULTIPLE DELETE ACTIONS.

1. In **Anypoint Studio**, on the **File** menu, click New > Mule Project.
2. In the **Message Flow** tab, build your flow by dropping Connectors into the **Anypoint Studio Flow** area.
3. Double-click the *Anaplan* connector.
4. Set the **Anaplan Authentication**. In general, we recommend using Certificate Authentication because it is more secure than Basic Authentication. See Configuring Authentication: Basic or Certificate.
5. For **Operation**, choose *Process*, then enter the **Name** or **ID** of the *Action*, *Model*, and *Workspace*.
6. Save your Flow.
7. Select your Flow, and on the **Run** menu, click Run As > Mule Application. This puts the Flow in the *deployed* state.
8. To run the Flow, refresh a browser that is set to http://localhost:8081/
9. Watch the Flow run in the **Anypoint Studio Console**, which displays the name of the Process within Anaplan.
10. Refresh the browser that is still pointing at http://localhost:8081 to see the outcome message, which displays the name of the Process within Anaplan.

